

State of New Hampshire DEPARTMENT OF ENVIRONMENTAL SERVICES

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December 17, 2003

Superfund Records, Center

Mayor and Council City of Berlin City Hall 168 Main Street Berlin, NH 03570



SDMS DocID

289924

SUBJECT: Former Chlor-alkali Plant Site, Berlin, New Hampshire (DES# 1997090466).

Dear Mayor and Council Members:

As we discussed in our meeting with Messrs. MacQueen and Wheeler on December 10, 2003, the New Hampshire Department of Environmental Services (Department) is initiating the process to have the subject site listed on the United States Environmental Protection Agency's CERLIS list. Please find below a summary of the site history and the reason the Department is pursuing listing.

Background

The former Cell House site (the subject site) is the location of a former chlor-alkali plant that operated from around 1900 to the 1950s. The chlor-alkli process at the Berlin facility used mercury cells to produce chlorine gas. A mercury cell was an electrolytic cell consisting of an elemental mercury cathode (a thin layer of mercury) and a graphite anode.

Since 1997, various site investigations of the property, by former owners, have determined that there is soil contaminated with mercury (up to 9,400 mg/kg) and lead (up to 8,500 mg/kg) at concentration significantly above the Department's soil standards (mercury at 13 mg/kg and lead at 400 mg/kg). Soil contamination is not limited to one area. Also, the groundwater is contaminated with chloroform, dichloromethane (methylene chloride), arsenic, lead and mercury above NH regulatory standards.

Site actions, completed by the former property owners, have included demolition of the remaining cell house, installation of a slurry wall around two sides of the site to inhibit groundwater flow into the cell house area, and capping the site with a synthetic membrane to inhibit rain from percolating into the cell house area. However, water flows continuously from a drainage pipe from the capped area indicating that seepage into the capped area is occurring. Elemental mercury has been observed in bedrock fissures along the Androscoggin River. Five mercury removal efforts have occurred beginning in 1999 resulting in removal of approximately 135 pounds of elemental mercury. During the last year, several investigations funded by the Department, have been completed at the subject site. Both the United State Geological Survey and the Department's consultant have completed work to assess the quantity and extent of the

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and the Department's consultant have completed work to assess the quantity and extent of the elemental mercury contamination in the subsurface. Also, additional work to better define the extent is currently underway and will be completed in 2004.

Justification for CERCLIS Listing

From the information gathered, it appears that remedial work will be necessary. As part of the sale of the Berlin and Gorham mill properties, since there were no viable operators and no viable property owners due to bankruptcy, the State agreed to take responsibility for the cleanup of the subject site. To date, the State has invested about \$500,000 in the project for the removal of mercury and site investigation work. The Department estimates that the cost to either remove or contain the mercury and lead would be several million dollars. These monies for investigation and remediation of hazardous waste sites come from the Hazardous Waste Cleanup Fund which is dedicated to the cleanup of hazardous waste sites throughout the state. Due to the financial situation of the State, this dedicated fund of finite funds is needed for activities at all hazardous waste sites and for activities necessary for the operation of the State's cleanup program. A separate appropriation for site cleanup specifically for the Cell House site is not reasonably likely at this time. By listing the site, the State will be able use USEPA to help with the assessment and cleanup of the site if necessary.

At this point in the process, no action is needed by the City. The Department may ask for your support when the site has been ranked by the USEPA and Superfund listing is being requested. In the interim, the Department would be pleased to make a presentation about the site before the council if you feel it would be helpful in further explaining this matter. Please do not hesitate to contact me at 271-2755 or at mbastien@des.state.nh.us if you have any questions regarding this letter.

Sincerely,

Margaret Bastien, P.E.

Hazardous Waste Remediation Bureau

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cc:

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